

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 70,87-89 are rejected under 35 U.S.C. 102(b) as being anticipated by Purdom (US 5,750,925).

Regarding claim 70, Purdom discloses a hardened voyage data recorder, comprising:

- (a) a removable memory subsystem 102;
- (b) a mounting base subsystem 101 removably coupled to said memory subsystem; and
- (c) electronic circuits 113 for electronically accessing said memory subsystem,

Office Action Summary

Application No.

09/899,647

Applicant(s)

BROWNING ET AL.

Examiner

Carmelo Oliva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-110 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47-69 and 80-86 is/are allowed.
- 6) ☒ Claim(s) 70-76, 79, 87-89, 95-97 and 103-105 is/are rejected.
- 7) ☒ Claim(s) 77, 78, 90-94, 98-102 and 106-110 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 899,647	07/06/2001	Margaret Browning	L3-007	7722

7590
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08/12/2003

EXAMINER

OLIVA, CARMELO B

ART UNIT	PAPER NUMBER
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DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

said electronic circuits of Purdom are located in said mounting base subsystem (see Fig. 1B).

Regarding claim 87, Purdom discloses a hardened voyage data recorder in Fig. 1B, comprising:

(a) a removable memory subsystem 102; and
(b) a mounting base subsystem 101 removably coupled to said memory subsystem, wherein said removable memory subsystem includes non-volatile memory 109 enclosed within a boiler 105. The limitation of "the mounting base subsystem is adapted to be mounted on the exterior of a marine vessel" is an intended usage limitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claim 88, said mounting base subsystem 102 includes at least one watertight cable connector 113.

Regarding claim 89, said mounting base subsystem includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 71-76 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Wright (US 6,167,238).

Regarding claim 71, Purdom does not disclose connecting the circuits to an ethernet network. Wright teaches a voyage data recorder which is connected to an ETHERNET network (col. 26, lines 7-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the electronic circuits to an ETHERNET network as taught by Wright in order to allow computer communications across Internet networking (col. 26, lines 11 and 12).

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Regarding claim 72, Wright teaches firmware which provides TCP/IP access over ETHERNET to said circuits (col. 26, lines 11-12).

Regarding claim 73, Wright teaches including web pages for configuring said hardened voyage data recorder (col. 26, lines 37-50).

Regarding claim 74, said mounting base subsystem of Purdom includes at least one watertight cable connector 113.

Regarding claim 75, said mounting base subsystem of Purdom includes watertight connectors 113 coupling inherently to an external power supply and to an ETHERNET source (as taught by Wright), in order for proper function of the internal memory device 109 and other internal electronic devices.

Regarding claim 76, it would have been obvious to one having ordinary skill in the art at the time the invention was made for said electronic circuits of Purdom to accept both 110/220 VAC and 24 VDC power supplies since these are both well known standards for power input.

Regarding claim 79, said removable memory subsystem of Purdom includes nonvolatile memory 109 enclosed within a boiler 105.

7. Claims 95-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Lemke et al. (US 5,317,463).

Regarding claim 95, Purdom discloses a hardened voyage data recorder, comprising:

(a) a removable memory subsystem 102;

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(b) a mounting base subsystem 101 removably coupled to said memory subsystem;

However, Purdom does not disclose at least one memory interface converter chip coupled to said removable memory subsystem. Lemke et al teaches a voyage data recorder having a converter chip (A/D conversion, col. 15, lines 8-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an analog to digital converter chip as taught by Lemke et al. in order for the incoming data to be converted to the correct format for storage within the memory subsystem.

Regarding claim 96, said mounting base subsystem of Purdom includes at least one watertight cable connector 113.

Regarding claim 97, said mounting base system of Purdom includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

8. Claims 103-105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Purdom et al. (US 5,841,631).

Regarding claim 103, Purdom '925 discloses a hardened voyage data recorder, comprising:

- (a) a removable memory subsystem 102;
- (b) a mounting base subsystem 101 removably coupled to said memory subsystem.

However, wherein said removable memory subsystem does not include a stacked memory and a plurality of memory interface chips arranged for communication with a processor such that a large number of memory chips may be driven. Purdom et al. '638 teaches stacked memory interface chips which communicate with a processor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a stack of memory chips as taught by Purdom et al. '638, in order to reduce memory volume required for housing a data recording device (col. 1, lines 9-11).

Regarding claim 104, said mounting base subsystem of Purdom '925 includes at least one watertight cable connector 113.

Regarding claim 105, said mounting base subsystem of Purdom '925 includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

Allowable Subject Matter

9. Claims 47-69 and 80-86 are allowed.
10. Claims 77,78,90-94,98-102 and 106-110 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
11. The following is a statement of reasons for the indication of allowable subject matter:

Claims 47-69 are allowable because the prior art alone or in combination does not teach or fairly suggest a hardened voyage data recorder having a first module including a mountable base and a removable memory module removably coupled to the first module, the memory module including an outer housing, a cover for the outer housing, a thermal insulator, and a boiler having a thermal mass in a containment compartment and solid state memory in a protective compartment, the compartments having a passagewaytherebetween, in combination with the other claimed features.

Claims 77,78,80-86,90-94,98-102 and 106-110 are allowable because the prior art alone or in combination does not teach or fairly suggest a hardened voyage data recorder having a removable memory subsystem and a mounting base subsystem each having flanges, whereby a quick release clamp engages the flanges and the base subsystem is removably coupled to the memory subsystem, in combination with the other claimed features.

Response to Arguments

12. Applicant's arguments filed April 22, 2003 have been fully considered but they are not persuasive.

In response to the applicant's argument that Purdom does not disclose that the "mounting base subsystem protects and includes therein electronic circuits." The definition of "circuits" is **a.** A closed path followed or capable of being followed by an electric current. **b.** A configuration of electrically or electromagnetically connected

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components or devices.¹ Therefor a cable as shown by Purdom can be considered part of a circuit, and the circuit of Purdom is within and protected by the base (see 115 in Fig. 1B).

In response to the applicant's argument that Purdom does not show a "mounting base subsystem", as shown in Fig. 1A,1B, Purdom shows mounting means (not numbered) on the bottom of the cover for mounting the base.

In response to the applicant's argument that the applicant's invention is drawn to a marine voyage recorder and Purdom is drawn to a flight recorder, the structures are in the same field of endeavor, serve the same purpose and have similar structure, therefore it is reasonable to use a flight recorder structure in a rejection against the applicant's invention. Further, structural difference between the two must be present in the claim to show patentability.

In response to the applicant's argument that the cable connector of Purdom is not watertight, the cable is shown to be encapsulated between insulating structures 103A and 103B which would form a watertight seal. Further, a flight data recorder would necessarily be watertight so that any landing in water would not destroy the circuits and devices inside the recorder.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Serial/Parallel converter) are not recited in the rejected claim(s). Although the

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claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carmelo Oliva whose telephone number is (703)305-0835. The examiner can normally be reached flexible hours on Monday through Friday with every other Wednesday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard, can be reached on (703)308-3682. The fax phone number

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for this Group is (703) 305-3431 for regular communications, and (703) 305-1341 for after final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.


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